

REMARKS

Applicant respectfully requests reconsideration of this application. Claims 1-30 are currently pending.

Claims 1, 2, 11, 16, 18, 22, 24-27, and 30 have been amended. Claims 19-21 have been cancelled. No claims have been added.

Therefore, claims 1-18 and 22-30 are now presented for examination.

Claim Amendments

Portions of the suggested claim amendments previously discussed with the Examiner are incorporated into the current claims.

Objections to the Specification

The Examiner has objected to the following paragraphs:

¶ 0026 – The paragraph has been amended to correct the terminology by changing “segmentation” to “segment” with regard to pixels being inside or outside of a segment. A similar change is made to claim 0030.

¶ 0029 – The equation $f : S \rightarrow \mathbf{R}$ has not been altered. This format has been used to describe the segmentation loss function / scoring each segmentation S with regard to a fixed criterion \mathbf{R} and it is submitted that the present equation format is appropriate.

¶ 0030 – The “set of segmentations \mathcal{S} ” has been modified to remove bolding of “ \mathcal{S} ”.

¶¶ 0031, 0032, and 0036 – In response to the objection, paragraphs 0031, 0032, and 0036 have been amended to change the superscript to a bold “ \mathbf{S} ”.

¶¶ 0032 and 0036 – Paragraphs 0032 and 0036 have been amended to change “cells” to “segments”, to better follow the definition of segmentation found in paragraph 0016.

¶ 0033 – The phrase “any pixel p in a set S of segmentations” has been clarified to read “any pixel p and set of segmentations S ”.

Objections

The Examiner has objected to Claim 11 because of an informality.

Line 1 of claim 11 has been corrected to refer to the “imager”, rather than the “image”.

Claim Rejections under 35 U.S.C. §101

The Examiner has rejected claims 25-30 as allegedly containing non-patentable subject matter under the provisions of 35 U.S.C. §101.

Without any concession to the subject matter of the rejection, the rejected claims have been amended to refer to “a computer-readable storage medium” containing instructions executed by “a processor”. It is submitted that the amendments fully address the rejection under 35 U.S.C. §101.

Claim Rejections under 35 U.S.C. §112

The Examiner has rejected to Claims 1-9, 16, 17, and 22-30 as being indefinite for failing to particularly point out and distinctly claim the subject matter under the requirements of 35 U.S.C. §112, second paragraph.

Claims 1-9 – Claim 1 has been amended to clarify the iterative process. A similar amendment has been made to claim 25. It is submitted that the amendment to claim 1 fully responds to the rejection of claims 1-9.

Claims 16 and 17 – Claim 16 has been corrected to refer to the “branch and bound analysis”, rather than the “branch and bound technique”. It is submitted that the amendment to claim 16 addresses the rejection of claims 16 and 17.

Claim 22 – Claim 22 has been amended to indicate that the imaging system “further comprises” a focused ion beam tool.

Claim 23 – Claim 18 has been amended to indicate that the imaging device is to receive an image of a “device under test”. It is submitted that the amendment to claim 18 provides an antecedent basis for “the device under test” provided in claim 23.

Claim 24 – Claim 24 has been corrected to be dependent on claim 23, rather than claim 18.

Claim 26 – Claim 26 has been amended to refer to “the set of image segmentations”, rather than “the extracted set”, and to “processes (1), (2), (3), and (4), rather than “the process”.

Claim 27 – Claim 27 has been clarified to refer to refining a set of segmentations comprises producing a set of segmentation sets that forms a partition of the first set of segmentations. The grammar of the claim has also been corrected because it is the set of segmentation sets that forms (not form) a partition.

Claim Rejections under 35 U.S.C. §102

Gat, et al.

The Examiner rejected claims 1-9 under 35 U.S.C. 102(a) as being anticipated by “A Branch-and –Bound Technique for Nano-Structure Image Segmentation” of Gat et al., (*“Gat”*).

Gat is the publication of inventor Yoram Gat. The declaration of inventor Yoram Gat (to be filed separately) addresses the publication.

Applicant hereby requests the removal of *Gat* as a reference under the provisions of 35 U.S.C. § 102(a).

Claim Rejection under 35 U.S.C. §103

Gat et al.

The Examiner rejected claims 10-30 under 35 U.S.C. 103(a) as being unpatentable over “A Branch-and –Bound Technique for Nano-Structure Image Segmentation” of Gat et al., (*“Gat”*).

As indicated above, *Gat* is the publication of inventor Yoram Gat, and the declaration of inventor Yoram Gat (to be filed separately) addresses the publication.

Applicant hereby requests the removal of *Gat* as a reference under the provisions of 35 U.S.C. § 103(a).

Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (503) 439-8778 if there remains any issue with allowance of the case.

Request for an Extension of Time if Needed

The Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be needed. Please charge any fee to our Deposit Account No. 02-2666.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: April 10, 2008

/Mark C. Van Ness/

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